

Amendments to the Specification:

Replace paragraph [0033] with the following:

21

The read signals thus gathered are combined to form a 3 dimensional graphic image of the defective region 555 like that of Fig. 2. This image is visually compared against a set of known defect categories 563 and assigned the name of the likeliest category 567. See Fig. 8 for profiles of "unreliable," "likely skip write," "likely scratch" and "miscellaneous" categories. This is a basic taxonomy, and is preferably adapted for a population of data storage devices for which it is used. For categories that include more than about 10% of the defects analyzed, it is suggested that classifications such as size be used to spawn more effective category descriptions. If large scratches are occurring for in a given line of data storage devices, for example, a "large scratch" category will be appropriate for identifying defects having a length more than the width of 500 tracks. Most preferably, profiles for about 3-30 categories should be defined so that the number of defects in each category will be somewhat uniform.

22

Replace paragraph [0041] with the following:

Note that according to this set of defect profiles, Fig. 7 will be categorized as unreliable, just as Fig. 6 was. This illustrates that it is not always necessary to obtain many scans between each two adjacent tracks, nor even one scan for each track passing through the defect. Successful automated characterization such as is illustrated in Fig. 8 can generally be performed successfully in two to five passes adjacent a defect. This is especially effective if the passes can initially be made at multi-track intervals as indicated in Fig. 6, with subsequent passes on adjacent tracks ~~bein~~ being made in the case of a skip write.

Replace paragraph [0051] with the following:

In a fourth embodiment, the read data from the passes of the first embodiment are combined to generate a useful topographical image (exemplified by **Fig. 2**) plotting ~~in~~ an indicator of field strength against a two-dimensional indicator of position with respect to the media surface. For decent resolution, the passes are preferably taken in reasonably close radial proximity to one another (i.e. 1-2 track widths or less, also exemplified by **Fig. 2**). From this image, the defect is visually identified as a likeliest one of a predetermined set of known defect types each having a name, which is manually assigned as the category for the defective region.

3